



Assessment of Load and Energy Reduction Techniques (ALERT)

**Brad Gustafson
Utility Program Manager
Federal Energy Management Program - FEMP**



ALERT Objectives For FY 2001

Federal Energy Management Program

Peak Load Reduction Assessments

- Address reliability issues
- Part of the solution - preventing power outages
- Contain rapidly rising energy costs





ALERT Teams

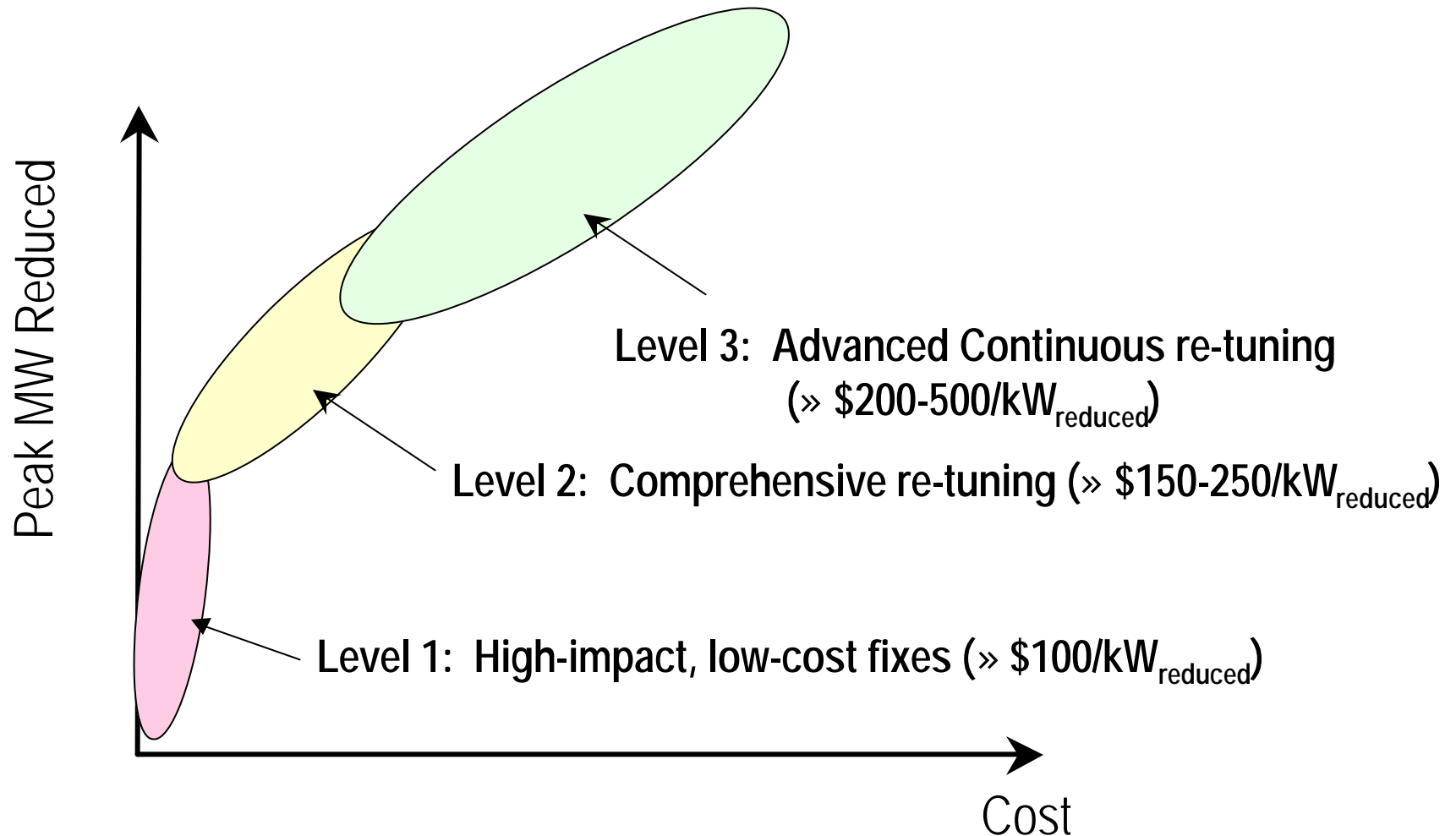
Federal Energy Management Program

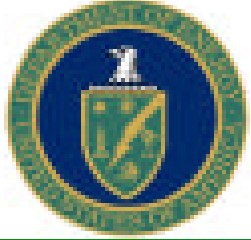
- Areas Addressed
 - No-cost and low-cost building operations measures
 - Limited assessment of distributed generation (DG) opportunities
 - Summary assessment of longer term energy efficiency opportunities
 - Assessment of Public Benefits Funding Opportunities



Cost Effectiveness of HVAC Re-tuning

Federal Energy Management Program





ALERT Teams

Federal Energy Management Program

- DOE Laboratories
- Private sector energy service providers
- DOE Industrial Assessment Centers
(State Universities – SDSU & SFSU)



ALERT Activity

Federal Energy Management Program

Peak Load Reduction Assessments

- First 8 sites in Northwest – GSA
- Next 25 sites - California
 - Participating agencies: GSA, USN, USMC, US Army, NASA, IRS, EPA, VAMC, DOE, Treasury, NPS, USPS



ALERT Primary Targets

Federal Energy Management Program

- Building controls systems
- Traditional Operation and Maintenance
- Heating Ventilating and Air-conditioning
- Future targets include:
 - Heating loads



ALERT - Results

Federal Energy Management Program

- Demand – 10.8%
- Consumption – 11.1%
- Cost – 11.4%

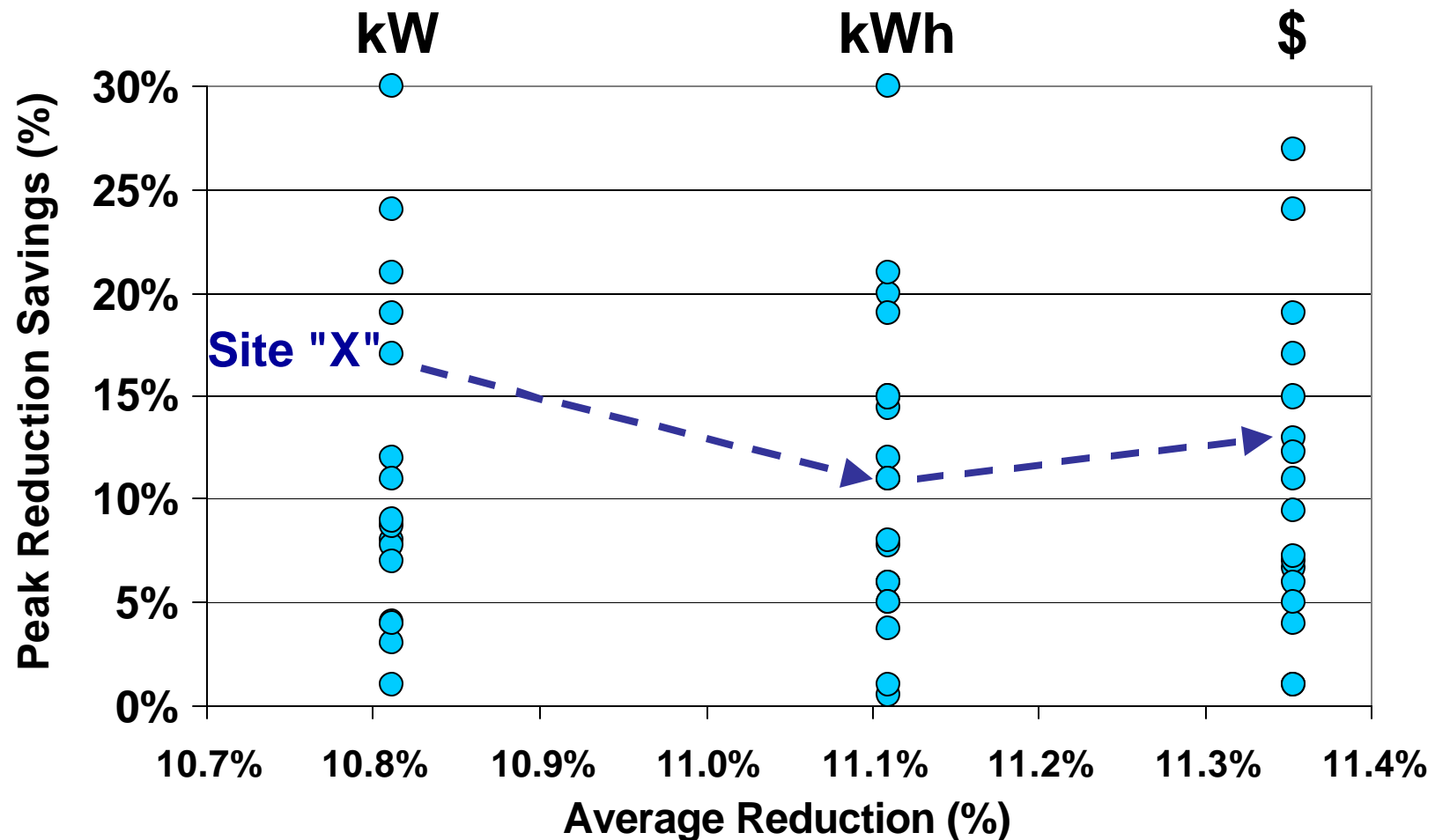
Averages for all 25 sites



Energy Savings & Demand Reduction

Federal Energy Management Program

Potential Savings

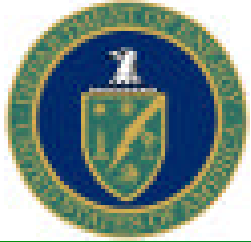




Most Commonly Found Problems/Opportunities

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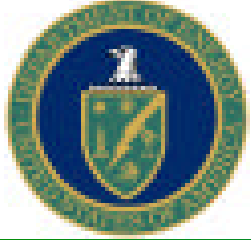
Opportunities	energy savers	peak reducing
Replace equipment (lighting, HVAC, VFD)	x	x
Eliminate unnecessary equipment operation	x	x
Traditional O&M (clean coils, repair leaks)	x	x
Revise set points (chilled water, boiler)	x	x
Retrofit lighting (T12, HID, CFL)	x	x
Optimize control system (integrate equip)	x	x
Repair economizer (blades, seals)	x	x



System Benefits Charge

Federal Energy Management Program

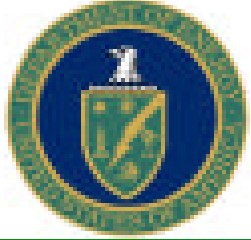
- 22 States with Public Benefit Programs
- Total \$1,697 million
- Recently, several states have made significant increases in their authorized spending for energy efficiency programs
 - New York (funding more than doubled)
 - BPA
 - Oregon
 - California



System Benefits Charge

Federal Energy Management Program

- Emphasis on energy efficiency programs has shifted to those programs that produce near-term reductions in summer peak demand



ALERT – Vision for 2002

Federal Energy Management Program

- More emphasis on heating efficiency
- Greater emphasis on controls
- Greater use of instrumentation
- Deployment to any location in US
- Training for Federal agencies on ALERT protocols
- Training for private sector assessment teams



Assessment of Load and
Energy Reduction
Techniques